

**CUSTOMER NO. 46850**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re: Attorney Docket No. Basavanhally 31-3

In re application of: Nagesh R. Basavanhally and Hong Tang

Serial No.:	10/602,476	Group Art Unit:	2883
Filed:	06/24/2003	Examiner:	Chiem, Dinh D.
Matter No.:	990.0487	Phone No.:	571-272-3102

For: Fiber-Optic Gauge Having One or More Side-Mounted Sensors

**DECLARATION UNDER 37 CFR 1.131**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

1. I am the applicant of the above-identified patent application and the inventor of the subject matter described and claimed therein ("the Invention").
2. Prior to March 14, 2003, I conceived the Invention (see Exhibit A, lab notes).
3. Prior to March 14, 2003, I prepared and submitted a disclosure of the Invention for purposes of internal review by Eugene Rosenthal, an in-house attorney for the assignee of the above-identified patent application (see Exhibit B).
5. On April 9, 2003, the disclosure was forwarded to an outside counsel at Mendelsohn and Associates, P.C., for the preparation and filing of a patent application directed to the Invention (see Exhibit C).
6. On May 14, 2003, I contacted patent attorney Yuri Gruzdkov of Mendelsohn and Associates, P.C., in response to his email of May 13, 2003, regarding the drafting of the patent application directed to the Invention (see Exhibit D).
7. On June 3, 2003, I received a first draft of the patent application from Yuri Gruzdkov (see Exhibit E).
8. The above-identified application was filed on June 24, 2003.

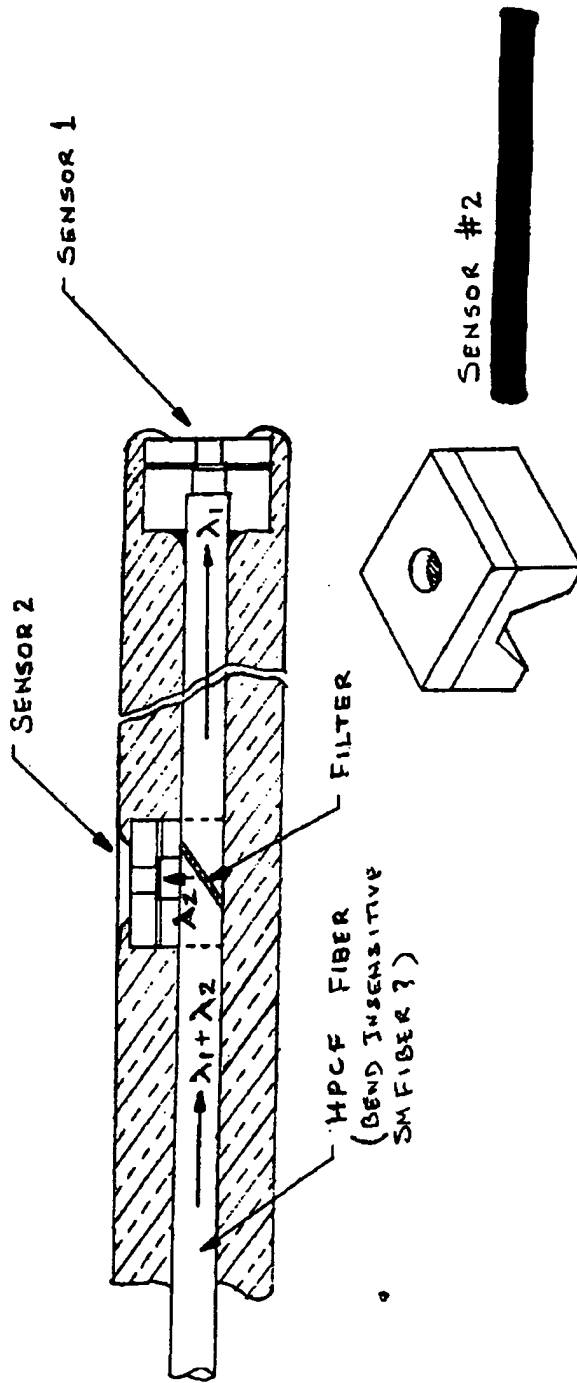
I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

March 3, 2009  
Date

Nagesh R. Basavanhally  
Nagesh R. Basavanhally

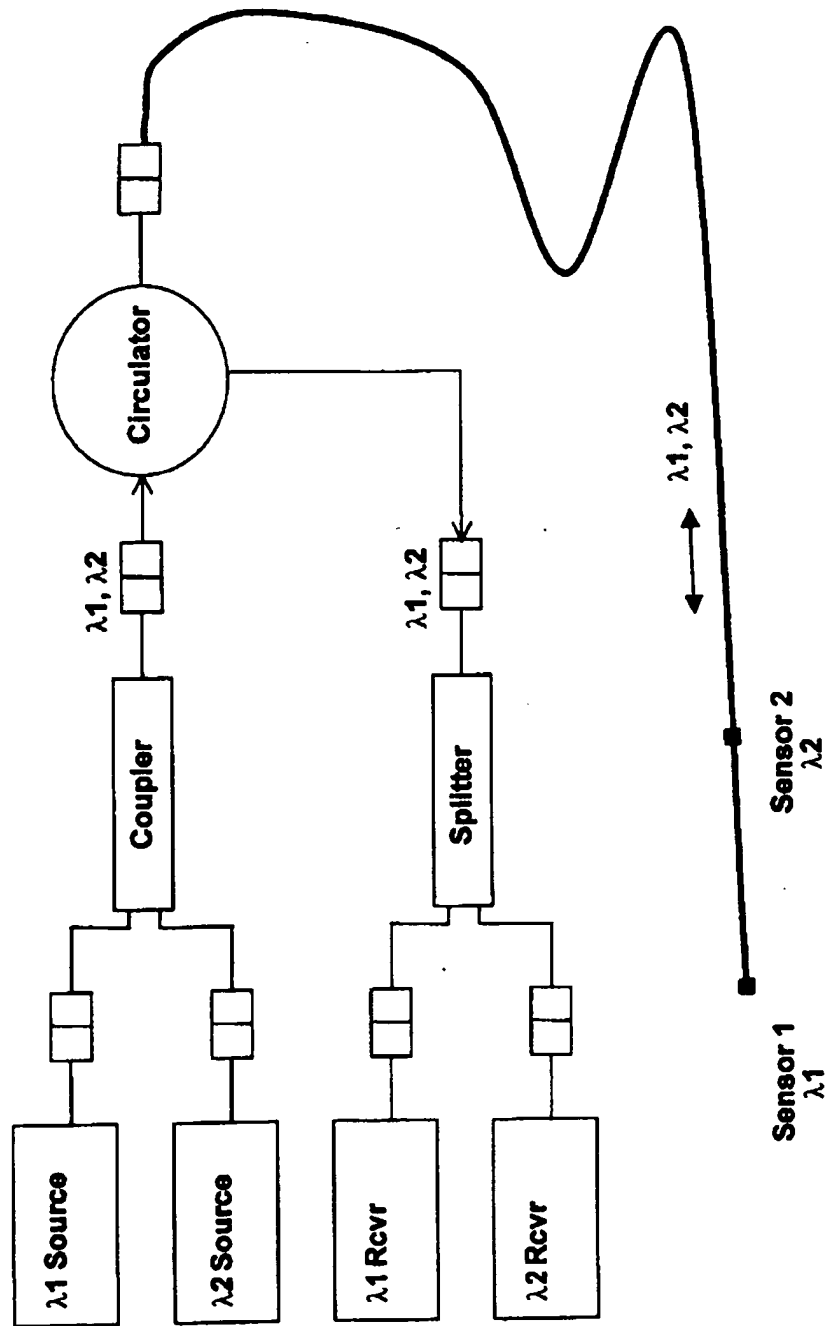
# DWM Based Multi-Head Optical Sensor

Exhibit A



NAGESH BASINAHALLY

## DWM Based Multi-Head Optical Sensor



Tuesday, [REDACTED]

SUBMISSION NO. : 125562  
ATTORNEY : Rosenthal, Eugene J.  
TITLE :

MEMS Based WDM Multi-Port Pressure Sensor

## -----MAIN INFORMATION-----

ITEM STATUS	: Open	LUCENT RATING	: II
STATUS DATE	: [REDACTED]	GOVT. CONTRACT	: N
OPEN DATE	: [REDACTED]	TYPE	: Patentability
CLOSE DATE	:	DEADLINE DATE	:
CLASS CODE	: II	TECHNOLOGY	:
BU CODES(S)	: BLRS	OWNER	: Lucent

## FOREIGN FILING RECOMMENDATION:

## -----EURO SUBMISSION REVIEW INFORMATION-----

CURRENT STATUS :  
PATENT LIAISON :

ACTION TAKEN BY :  
PRIORITY CODE : 0

## -----SUBMITTER INFORMATION-----

SUBMITTER NAME : Basavanhally, Nagesh R  
COMPANY : LUCENT  
LOCATION : nj9620  
EXTENSION : +1 908 582 5455  
DEPARTMENT : BL0111140  
DIRECTOR : C. A. Murray

SUBMITTER NAME : Tang, Hong  
COMPANY : LUCENT  
LOCATION : nj9620  
EXTENSION : +1 908 582 5548  
DEPARTMENT : BL0111810  
DIRECTOR : Louis Manzione

## Brief Description:

Exhibit B (2/3)

Class number: <u>2</u>	Date: <u>[REDACTED]</u>
Criterion letter: _____	Signature: <u>[Signature]</u>

**PRIVILEGED AND CONFIDENTIAL  
ATTORNEY-CLIENT COMMUNICATION**

For Dept. Head / Director's Use Only

**LUCENT TECHNOLOGIES INC.**

**DISCLOSURE OF INVENTION**

THIS DESCRIPTION SHOULD BE SUPPLEMENTED BY ATTACHING COPIES OF RELEVANT DOCUMENTS, SUCH AS TECHNICAL MEMORANDA, PUBLISHED OR TO-BE-PUBLISHED ARTICLES, AND ENGINEERING NOTEBOOK PAGES.  
(Also, if for any item there is insufficient space on the form, attach additional pages as necessary.)

DESCRIPTIVE TITLE OF THE INVENTION: MEMS based WDM Multi-port Pressure Sensor

SUBMITTER #1: <u>Nagesh Basavanahally</u>	<u>Lucent Tech. Bell Labs. MH, 7F 214</u>
Name (Print)	Company/Location
<u>908 582 5455</u>	<u>Lou Manzione</u>
Phone/E-mail	Director's Name

SUBMITTER #2: <u>Hong Tang</u>	<u>Lucent Tech. Bell Labs. MH</u>
Name (Print)	Company/Location
<u>908 582 5548</u>	
Phone/E-mail	Director's Name

SUBMITTER #3: _____	_____
Name (Print)	Company/Location
_____	_____
Phone/E-mail	Director's Name

**2. PRIMARY CONTACT**

If more than one Submitter is named above, who will have the primary responsibilities for interfacing with Lucent IP-Law with respect to preparing and prosecuting a patent application for the invention?

Submitter Name: Nagesh Basavanahally

**3. PRESENT STATE OF THE INVENTION**

☐ Manufacture (Product Name \_\_\_\_\_)  
Estimated Ship Date \_\_\_\_\_ )

**4. GOVERNMENT CONTRACT INVENTION**

Was the invention made under a government contract? ☐ Yes ☒ No

Information disclosed herein is solely for the purpose of initiating a patentability study and may not correspond to any claim(s) of any patent that ultimately issues as a result of the submission of this form.

5. PRESENT STATE OF THE ART

Briefly describe the closest already-known technology that relates to the invention. This would include, for example, already existing products, methods or compositions which are known to you personally or through descriptions in publications or patents.

In-Vivo pressure sensor by FISO Technologies : Uses white light interferometric interrogation technique with silicon micro machine technology

6. ADVANCEMENT IN STATE OF THE ART

Briefly describe the unique advancement achieved by the invention. This may be done, for example, by describing a problem with the prior art that is solved or specific objects that are achieved by the invention.

The current technique proposes a method of measuring pressure at more than one location using a single optical fiber and multi-sensors attached to it.

7. HOW ACHIEVED

Briefly describe the invention and how it achieves the advancement described in paragraph 6.

The concept uses two or more MEMS based fiber optic sensors (see patents by D.S. Greywall) attached to an optical fiber at different locations along its length. An optical signal containing many wavelengths (equal to the number of sensors) is de-multiplexed at the sensor locations using thin-film filters introduced in the optical path. The pressure signal is reflected back into the fiber where it is measured using a number of detectors.

8. DISCLOSURE OUTSIDE OF LUCENT

Anticipated Publication Date: \_\_\_\_\_ Publication Name: \_\_\_\_\_

Submitted to Publication Clearance? ☐ Yes ☐ No

If the invention was or will otherwise be disclosed to any non-Lucent employee, describe to whom (person/company), when, where, why, and whether it was/will be under a non-disclosure agreement.

May be disclosed to Dr. Abel Moreyra and his staff at UMDNJ after obtaining NDA. Please contact Dr. Susanne Arney for further information on the disclosure.

9. SUBMITTER #1: \_\_\_\_\_  
Signature Date

SUBMITTER #2: \_\_\_\_\_  
Signature Date

SUBMITTER #3: \_\_\_\_\_  
Signature Date

Exhibit C

990.0487

**Lucent Technologies**  
Bell Labs Innovations



**Susan E. Curry**  
*Administrative Manager  
Outside Counsel Program  
Intellectual Property Business*

101 Crawford's Corner Road  
Room 3J-227  
Holmdel, NJ 07733-3030 USA

Phone 732 949 7841  
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securry@lucent.com

April 9, 2003

VIA PRIORITY MAIL

Steven Mendelsohn, Esq.  
Mendelsohn & Associates, P.C.  
1515 Market Street, Suite 715  
Philadelphia, PA 19102

Re: IDS No.: 125562

Managing Attorney

Eugene J. Rosenthal

Secretary

Tamika Gatson

Telephone No.

(732) 949-1857

Telephone No.

(732) 949-1187

Fax No.

(732) 949-0102

Dear Steve:

Enclosed is a copy of the above-referenced patent submission. Please file the application by July 14, 2003. If for any reason you cannot meet the filing date requested or need to change the filing date, you MUST notify me and the Managing Attorney (MA) as soon as possible

***This application will be foreign filed. Please provide me with an additional copy of the application with a reduced set of 10 claims, in accordance with Lucent's Procedures for Outside Counsel previously furnished to you.***

After the final claims have been drafted and you are therefore in a position to identify the inventors, please send **ATTACHMENT 1** "Request for Case Name/Number" VIA FACSIMILE to Norma Davis at (732) 949-6410.

A copy of the proposed application is to be sent to the MA prior to execution of the Declaration and Assignment; likewise, all other substantive papers such as amendments, appeal briefs and the like are to be sent to the MA prior to filing. Please note, however, that the MA may not be in a position to review the application or other papers prior to filing, or may choose to conduct only a quality control review either now or at a later time. Accordingly, the ultimate responsibility for the timely filing as well as the quality and contents of the papers of this application and any resulting patent rests with you. **If you do not receive specific instructions from the MA within five (5) business days from the date that the application or any subsequent papers were submitted to the MA, you are authorized and directed to transmit same directly to the USPTO.**

If, during the prosecution of an application, you believe that a CPA/CIP, Divisional, Appeal, etc. should be filed, your advice should be presented to the MA for concurrence, prior to commencement of any work.

Very truly yours,

*Susan E. Curry*

SEC:nmd

Encl. (As above)

RECEIVED 4-15-03  
MENDELSOHN & ASSOC.

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From: "Basavanhally, Nagesh R (Nagesh)" <basavanhally@lucent.com>

To: 'Yuri Gruzdkov' <yuri@mendelip.com>, "Basavanhally, Nagesh R (Nagesh)" <basavanhally@lucent.com>

Subject: RE: IDS #125562

Date: Wed, 14 May 2003 11:46:26 -0400

▶ [Show Full Message Headers](#)

Yuri:

Attached are the CAD dwgs for your info. Also, please take a look at the pressure sensor (FOP-M) by Fiso technologies. Their web site is [www.fiso.com](http://www.fiso.com).

Thanks.

Nagesh

-----Original Message-----

From: Yuri Gruzdkov [mailto:[yuri@mendelip.com](mailto:yuri@mendelip.com)]

Sent: Tuesday, May 13, 2003 1:57 PM

To: [basavanhally@lucent.com](mailto:basavanhally@lucent.com)

Subject: IDS #125562

Nagesh,

please contact me at your earliest convenience regarding the above-referenced Lucent patent submission entitled "MEMS-based WDM multi-port pressure sensor"

Thank you,

-Yuri

---

Yuri Gruzdkov  
Mendelsohn and Associates, P.C.  
1515 Market Street, Suite 715  
Philadelphia, PA 19102  
Tel.: 215-557-8544



Exhibit E

Basavanhally, Nagesh R (Nagesh), 04:03 PM 6/3/2003 -0400, initial draft

---

To: "Basavanhally, Nagesh R (Nagesh)" <basavanhally@lucent.com>

From: Yuri Gruzdkov <yuri@mendelip.com>

Subject: initial draft

Cc:

Bcc:

Attached: D:\Yuri\990.0487\990\_0487 text v02.doc; D:\Yuri\990.0487\990\_0487 Scanned Figs (6.03.03).doc;

Nagesh,

attached to this message is the initial draft of your patent application for your review. I am looking forward to receiving your comments.

If you would, please acknowledge receipt of this message.

Thanks,

-Yuri

(215) 557-8544